

10 5'TGAT GCT CTG GGC TGT CTT CAC ACT TCA TTT GGG TTT CCT GCT TGC TCT GAG CTC 55  
 19 46  
 64 TAC AGG GGA ATG GGG TAG AGA TGG GAG CCA CCT TGG GTG GAG GGT GGG GAA GGT 109  
 73 82  
 118 127 136 145 154 163  
 ATG TTC TGC CCA CAG GTG TCA TGC TCA CTC AGC CTG ATG CCC AGG CTG CCA  
 M F C P P Q V S C S L S L M P R L P  
 172 181 190 199 208 217  
 AGT ATA AGG CAT TGG CAG GGG CCC AGC CAC CCT GGG TTC CTT GGT CCC CTA TTC  
 S I R H W Q G P S S H P G F L G P L F  
 226 235 244 253 262 271  
 CCC ATC TGC TCC CTG CAG TGG CCC CAT GGG TTC TCT TCT GCC ATC TTC CCA GGC CTG  
 P I C S L Q W P H G F S A I F P G L  
 280 289 298 307 316 325  
 CTG GAT GTG TAT GGA TTT GAA TCA TTT CCT GAC AAC AGT CTG GAA CAG TTG TGC  
 L D V Y G F F S F P P D N S L E Q L C  
 334 343 352 361 370 379  
 ATC AAC TAC GCC AAT GAG AAG CTG CAG CAG CAT TTT GTG GCT CAC TAC CTA AGG  
 I N Y A N E K L Q Q H F V A H Y L R

FIGURE 1A

388 GCC CAG CAG GAG GAA TAC GCA GTT GAG GGC CTG GAG TGG TCA TTC ATC AAC TAC 433  
 A Q Q E E Y A V E G L E W S F I N Y  
  
 442 CAG GAC AAC CAG CCC TGT TTG GAT CTC ATT GAG GGA AGC CCC ATC AGC ATC TGC 487  
 Q D N Q C P C L D L I E G S P I S I C  
  
 496 TCC CTC ATA AAT GAG GAA TGC CGC CTC AAT CGA CCC AGC AGC GCA CGC CAG CTC 541  
 S L I N E E C R L N R P S S A R Q L  
  
 550 CAG ACA CGC ATT GAG ACT GCC CTG GCA GGC AGC CCC TGC CTG GGC CAC AAT AAG 595  
 Q T R I E T A L A G S P C L G H N K  
  
 604 CTC AGC CGG GAG CCC AGC TTC ATT GTG GTG CAT TAT GCG GGG CCT GTG CGG TAC 649  
 L S R E P S S F I V V H Y A G P V R Y  
  
 658 CAC ACA GCA GGC CTG GTG GAG AAG AAC AAG GAC CCT ATC CCA CCT GAG CTG ACC 703  
 H T A G L V E K N K D P I P P E L T  
  
 712 AGG CTC CTG CAG CAA TCC CAG GAC CCC CTG CTC ATG GGG CTG TTT CCT ACT AAC 757  
 R L L Q Q S Q Q D P L L M G L F P T N

FIGURE 1B

766	775	784	793	802	811
CCC AAA GAG AAG ACC CAG GAG GAA CCC CCT GGC CAG AGC AGG GCC CCT GTG TTTG					
P K E K T Q	E E P P P G Q S R A P V L				
820	829	838	847	856	865
ACC GTG GTG TCC AAG TTC AAG GCC TCA CTG GAG CAG CTT CTG CAG GTC CTA CAC					
T V V S K F K A S L E Q L Q V L H					
874	883	892	901	910	919
AGC ACC ACG CCC CAC TAC ATT CGC TGC ATC AAG CCC AAC AGC CAG GGC CAG GCG					
S T T P H Y I R C I K P N S Q G Q A					
928	937	946	955	964	973
CAG ACC TTT CTC CAA GAG GAG GTC CTG AGC CAG CTG GAG GCC TGT GGC CTC GTG					
Q T F L Q E E V L S Q L E A C G L V					
982	991	1000	1009	1018	1027
GAG ACC ATC CAT ATC AGT GCT GCT GGC TTC CCC ATC CGG GTC TCT CAC CGA AAC					
E T I H I S A A G F P I R V S H R N					
1036	1045	1054	1063	1072	1081
TTT GTA GAA CGA TAC AAG TTA CTA AGA AGG CTT CAT CCT TGC ACA TCC TCT GGC					
F V E R Y K L L R R L H P C T S S G					
1090	1099	1108	1117	1126	1135
CCC GAC AGC CCA TAT CCT GCC AAA GGG CTC CCT GAA TGG TGT CCA CAC AGC GAG					
P D S P Y P A K G L P P E W C P H S E					

FIGURE 1C

1144 1153 1162 1171 1180 1189  
GAA GCC ACG CTT GAA CCT CTC ATC CAG GAC ATT CTC CAC ACT CTG CCG GTC CTA  
E A T L E P L I Q I L H T L P V L

1198 1207 1216 1225 1234 1243  
ACT CAG GCA GCA GCC ATA ACT GGT GAC TCG GCT GAG GCC ATG CCA GCC CCC ATG  
T Q A A A I T G D S A A E A M P A P M

1252 1261 1270 1279 1288 1297  
CAC TGT GGC AGG ACC AAG GTG TTC ATG ACT GAC TCT ATG CTG GAG CTT CTG GAA  
H C G R T K V F M T D S M L E L L E

1306 1315 1324 1333 1342 1351  
TGT GGG CGT GCC CGG GTG CTG GAG CAG TGT GCC CGC TGC ATC CAG GGT GGC TGG  
C G R A R V L E Q C A R C I Q G G W

1360 1369 1378 1387 1396 1405  
AGG CGA CAC CGG CAC CGA GAG CAG GAG CGG CAG TGG CGG GCC GTC ATG CTC ATC  
R R H R H R E Q E R Q W R A V M L I

1414 1423 1432 1441 1450 1459  
CAG GCA GCC ATT CGT TCC TGG TTA ACT CGG AAA CAC ATC CAG AGG CTG CAT GCA  
Q A A I R S W L T R R K H I Q R L H A

FIGURE 1D

1468	1477	1486	1495	1504	1513
GCT GCC ACA GTC ATC AAG CGT GCA TGG CAG AAG TGG AGA ATC AGA ATG GCC TGC					
A A T V I K R A W Q K W R I R M A C					
1522	1531	1540	1549	1558	1567
CTT GCT GCT AAA GAG CTG GAT GGT GTG GAA GAA AAA CAC TTC TCT CAA GCT CCC					
L A A K E L D G V E E K H F S Q A P					
1576	1585	1594	1603	1612	1621
TGT TCC CTG AGC ACC TCG CCG CTG CAG ACC AGG CTC CTG GAG GCA ATA ATC CGC					
C S L S T S P L Q T R L L E A I I R					
1630	1639	1648	1657	1666	1675
CTC TGG CCC CTG GGA CTG GTC CTG GCC AAT ACG GCT ATG GGT GTA GGC AGC TTT					
L W P L G L V L A N T A M G V G S F					
1684	1693	1702	1711	1720	1729
CAG AGG AAA TTA GTG GTC TGG GCT TGC CTC CAG CTC CCC AGG GGC AGC CCC AGT					
Q R K L V V W A C L Q L P R G S P S					
1738	1747	1756	1765	1774	1783
AGC TAC ACT GTC CAG ACA GCA CAA GAC CAG GCT GGT GTC ACG TCC ATC CGA GCG					
S Y T V Q T A Q D Q A G V T S I R A					
1792	1801	1810	1819	1828	1837
CTG CCT CAG GGA TCG ATA AAG TTT CAC TGC AGA AAG TCT CCA CTG CGG TAT GCT					
L P Q G S I K F H C R K S P L R Y A					

FIGURE 1E

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1846 1855 1864 1873 1882 1891  
 GAC ATC TGC CCT GAA CCT TCA CCC TAC AGC ATT ACA GGC TTT AAT CAG ATT CTG  
 D I C P E P S P Y S I T G F N Q I L  
  
 1900 1909 1918 1927 1936 1945  
 CTG GAA AGA CAC AGG CTG ATC CAC GTG ACC TCT TCT GCC TTC ACT GGG CTG GGG  
 L E R H R L I H V T S S A F T G L G  
  
 1954 1963 1972 1981 1990 1999  
 TGA TCC TTG GTG CCT TTG TTT CCA CAA GGC CTT TTC CTG CCC CCT GCC TTG CCA  
  
 2008 2017 2026 2035 2044 2053  
 AAG ACA TTT AAT CAG CAC ACA GCT GCC AGA CTA TTC CCA CAG TGC TCC AAA TGC  
  
 2062 2071 2080 2089 2098 2107  
 ACA TGA ACA ACA GTG ACG GGC TCA GCT TCG ACC CAG AGC CCC GTG CCC AGT GCG  
  
 T 3'

FIGURE 1F

09830914.050201

FIGURE 2A

FIGURE 2B

[illegible]

FIGURE 2C

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82	Q	H	F	V	A	H	Y	L	R	A	Q	Q	E	E	Y	A	V	E	G	L	E	W	S	F	I	N	Y	Q	D	N	1929760
519	Q	Q	F	N	Q	H	V	F	K	L	E	Q	E	E	Y	I	R	E	E	I	E	W	V	R	V	D	F	H	D	N	g1279777
511	Q	H	F	N	R	H	L	F	K	L	E	Q	E	E	Y	I	Q	D	G	I	D	W	A	K	V	D	F	E	D	N	g2444174
112	Q	P	C	L	D	L	I	E	G	S	P	I	S	I	C	S	L	I	N	E	E	C	R	-	L	N	R	P	S	S	1929760
549	Q	P	A	I	D	L	I	E	G	-	P	V	G	M	I	N	L	L	D	E	Q	C	K	R	L	N	G	S	D	A	g1279777
541	Q	D	C	L	N	L	F	E	K	K	P	L	G	L	M	T	L	L	D	E	E	S	T	F	P	N	G	T	D	M	g2444174
141	A	R	Q	L	Q	T	R	I	E	T	A	L	A	G	S	P	C	L	G	H	N	K	L	S	R	E	P	S	F	I	1929760
578	D	W	L	S	Q	L	Q	N	S	T	E	L	K	R	N	P	Q	L	A	F	P	K	V	-	R	S	N	D	F	I	g1279777
571	T	F	A	T	K	L	K	Q	-	-	H	L	K	T	N	S	-	-	C	F	R	G	E	-	R	G	K	A	F	T	g2444174
171	V	V	H	Y	A	G	P	V	R	Y	H	T	A	G	L	V	E	K	N	K	D	P	I	P	P	E	L	T	R	L	1929760
607	V	R	H	F	A	A	D	V	T	Y	S	T	D	G	F	V	E	K	N	R	D	A	I	G	E	Q	L	L	D	V	g1279777
596	V	H	H	Y	S	G	E	V	T	Y	D	T	S	G	F	L	E	K	N	R	D	L	L	H	L	D	S	I	Q	L	g2444174
201	L	Q	Q	S	Q	D	P	L	L	M	G	L	F	P	T	N	P	K	E	K	T	Q	E	E	P	-	-	-	-	-	1929760
637	V	V	A	S	K	F	P	F	I	R	T	V	I	G	S	T	A	P	T	S	V	S	S	S	S	S	-	-	-	S	g1279777
626	L	S	S	C	T	C	E	L	P	Q	A	F	A	S	N	M	L	S	L	S	E	K	P	V	P	G	P	L	H	K	g2444174
226	P	G	Q	S	R	A	P	V	L	T	V	V	S	K	F	K	A	S	L	E	Q	L	L	Q	V	L	H	S	T	T	1929760
665	T	P	G	K	R	T	I	K	K	T	V	A	S	Q	F	R	D	S	L	K	E	L	M	S	V	L	C	S	T	R	g1279777
656	S	G	G	A	D	S	Q	K	L	S	V	V	T	K	F	K	G	Q	L	F	Q	L	M	Q	R	L	E	S	T	T	g2444174

FIGURE 2D

FIGURE 2E

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388	- - - - -	T D S M L E L L E C G R A R V L	- - - - -	1929760
874	K Y E Q I R D S I I G I Q A M F K A N R V R R Y V E K L R Y			g1279777
864	R F E D V H G A T I T L Q A V - - - - -			g2444174
404	E Q C A R C I Q G G W R R H - R H R E Q E R Q W R A V M L I			1929760
904	E K S A I T I Q A A W R G Y L A R R E Q I A N R K K V V M V			g1279777
879	- - - - -			g2444174
433	Q A A I R S W L T R K - - - - -	H I Q R L H		1929760
934	Q C A V R K W L A K R R L R E L K I E A R S V G H L Q K L N			g1279777
879	- - - - -			g2444174
450	A A - - - - -			1929760
964	T G L E N K I I E L Q M R L D I A N A R T K E E A E K F A T			g1279777
894	- - - - -	L Q F G S G K G N G S D E - - - - -		g2444174
452	- - - - -			1929760
994	A S K N L Q K T K A D L A M M E A E R L T L L E A R N R V E			g1279777
907	- - - - -	V L V K S S Y L A E L Q R R - - - - -		g2444174
452	- - - - -			1929760
1024	V L Q E E V E R L E T E C D L K E A Q R G G M E T K M V E L			g1279777
921	I L K A E A G L R E - - - - -	K E E E N D I L H Q R L Q Q Y		g2444174

FIGURE 2F

FIGURE 2G

481	- - - - -	S I R V G E L E G A Y N R L K N D M E R L V S G E N G A T H	- - - - -	1929760
1234	- - - - -	- - - S Y D D S E R N S D A S I N T A N D E T N	- - - - -	g1279777
982	- - - - -	- - - - -	- - - - -	g2444174
481	- - - - -	- - - - -	H F S Q	1929760
1264	S V F E R I M E E N E R L R E E A V E L R S M L S H F E K	- - - - -	- - - - -	g1279777
1003	P P W D - - A A T N G R - R N G V E N V R P M - - - - -	- - - - -	- - - - -	g2444174
485	A P - - - - -	C S - - - - -	- - - - -	1929760
1294	Q S V A G S S G Y R R S P R P D S G H C S G A D S E D G S S	- - - - -	- - - - -	g1279777
1023	- - - - -	- - - - -	- - - - -	g2444174
489	- - - - -	- - - - -	- - - - -	1929760
1324	G A D L E E D L C I E R Q C R H L K N L A E N L T K M L T N	- - - - -	- - - - -	g1279777
1023	- - - - S A G L S V - - - - -	- - - - -	- - - - -	g2444174
489	- - - - -	L S T S P L Q - - - - -	- - - - -	1929760
1354	Q N L E I E R L Q Q Q L R F S E S Q T V F R P S D C S L D E	- - - - -	- - - - -	g1279777
1029	- - - - I S R L A E E - - F E Q R S Q V F - G D D A K F L V	- - - - -	- - - - -	g2444174
496	- - - - -	- - - - -	- - - - -	1929760
1384	A V R G A H K Q T Q L L A Q Q N M D L N D K L T R Q S E E L	- - - - -	- - - - -	g1279777
1052	E V K S G Q V E A N L - - - - -	- - - - -	- - - - -	g2444174

FIGURE 2H

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[illegible]

FIGURE 2I

511	- - - - -	V L A N T A M	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1929760
1594	I E H V L	S P K I V P G I L Q H E S S D L M T A G Q E R R	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g1279777
1088	- - - - -	E T K V I L N K L G H E D	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g2444174
518	- - - - -	G V G S F Q R K	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1929760
1624	D R N S	G S V E S Q R K	S L D D L L Q F M E I V H T K L T T	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g1279777
1101	- - - - -	G D G E K G K K	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g2444174
526	- - - - -	- - - - -	- - - - -	L V V W A C	- - - - -	L Q L P	- - - - -	- - - - -	- - - - -	1929760
1654	Y G G D D I V V K Q V I G Q M A R W M C A L A L N Y M M F R	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g1279777
1109	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g2444174
537	G S P S S Y	- - - - -	T V Q T A Q D Q A G V T S	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1929760
1684	R E L C N F E K A I Q I K H N V T Q I Q N W L N A K G L S D	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g1279777
1111	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g2444174
556	- - - - -	I R A L P Q G S I K F H C R K S P L R Y A D I C P E	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1929760
1714	C R D H F E P L V Q A C H L L Q S R K D P S N L D T L C G E	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g1279777
1112	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g2444174
582	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1929760
1744	M T S R L K P R Q V V A I L Q H Y D P S D E M E D G L S P E	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g1279777
1112	- - - - -	G R L N S S	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	g2444174

FIGURE 2J

FIGURE 2K